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TL7/23/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED  
JUL 14 2003  
GROUP 1700

In re the application of:

Peter C. Nielsen et al.

Serial No.: 09/883,244

Filed: June 19, 2001

For: LABELLING APPARATUS AND  
METHOD

Group Art Unit: 1734

Examiner: Sue A. Purvis

Attorney Docket: 92835-1

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

Dear Sir:

PTO Customer No. 22463

**RESPONSE TO OFFICE ACTION**

Responsive to the office letter of April 8, 2003, please amend this application as follows:

**Amendments to the Disclosure** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 4 of this paper.

**Amendments to the Drawings** begin on page 9 of this paper and include attached 7 replacement sheets of formal drawings and an annotated sheet showing changes on figures 7 and 7A.

**Remarks/Arguments** begin on page 10 of this paper.

An **Appendix** including corrected (formal) drawings figures 1 to 9 is attached following page 11 of this paper.

**Amendments to the Disclosure**

Amend the paragraph bridging pages 6 and 7 to read as follows

B1  
-- Referring to **figures 7 and 7A** with **figure 4**, an air diffuser **140** has a base **142 143** which is press fit into each cylindrical opening **136 (figure 6A)** of sleeve **130**. The air diffuser also has a snout **144 145** with a central opening **146** and side openings **148**. The air diffuser base **142** has a central opening **150** in fluid communication with the openings **146, 148** of the snout **144**. The air diffuser has a lip **152** for mounting a bellows **160**. Each bellows **160** is fabricated of a flexible material, such as rubber or silicone, which can be stretched over a lip **152** of an air diffuser **140**. The tamping end **162** of the bellows is perforated with pin holes **164**. A one-way valve at the tamping end comprises a flexible disk **166** internally mounted in the bellows **160** at a small stand off from the tamping end **162** by a short post **168**. It will be noted from **figure 7A** that with a bellows **160** mounted to an air diffuser **140**, the disk **166** seats on the central opening **146** of the air diffuser when the bellows is in its fully retracted position. --

Amend the paragraph bridging pages 9 and 10 to read as follows:

B2  
-- More particularly, the activation signal sent by the processor to stepper motor **44** advances the stepper motor **44** by one step to move a bellows **160** which had previously been loaded with a label through the label applying station. While moving through the label applying station, the bellows **160** registers with slot **120** in core **110** thereby coupling the source of positive air pressure to the air diffuser **140** of the bellows **160**. As air attempts to push out of the air diffuser into the bellows, air is initially blocked from exiting central opening **146** in the snout **144 145** of the air diffuser in view of disk **166** of the bellows blocking this opening. Consequently, initially, most air is directed out of the side openings **148** of the snout **144 145**. This air fills the vacuum in the bellows. Meanwhile, the air pressure will seat disk **166** against the pin holes **164** in the tamping end **162** of the bellows to block these perforations. With the vacuum in the bellows replaced by a positive pressure, the bellows quickly extends until it tamps the product at the labelling station **128**, thereby applying a label to the product. As the tamping bellows moves past the label applying station **128** it is again coupled to a source of vacuum

B2  
with

which quickly draws the bellows back to its collapsed position. At the end of the step by the stepper motor **44**, another bellows **160** will have advanced to the label pick-up station **70**. The processor may then cause the stepper motor **84** of the label cassette **50** to advance another label to the label pick-up station in order to load the bellows now at this station (**S228**), and the process may repeat. --

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